



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Edward J. Kaplan

Serial No.: 10/665,793

Art Unit: Not Yet Assigned

Filed: September 19, 2003

Examiner: Not Yet Assigned

For: *FLEXIBLE AND/OR ELASTIC BRACHYTHERAPY SEED OR STRAND*

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicant submits an Information Disclosure Statement, including thirteen (13) pages of Form PTO-1449 and copies of twenty-six (26) documents cited therein. Most of the documents cited below were cited by or submitted to the Patent Office in Application Serial No. 09/861,326, filed May 18, 2001, to which the present application claims priority. Pursuant to 37 C.F.R. §1.98(d), Applicants are not enclosing copies of these publications. Copies will be provided upon request, however. Copies of the newly cited documents, which are identified with an asterisk (*), are enclosed.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-1868.

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<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
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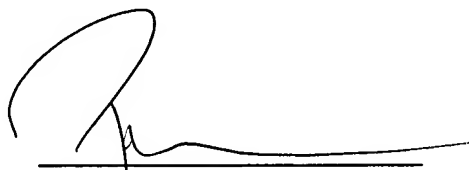
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Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicant invites the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicant is of the opinion that his claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



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INFORMATION DISCLOSURE STATEMENT

Certificate of Mailing under 37 C.F.R. § 1.8(a)

I hereby certify that this Information Disclosure Statement, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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<div style="text-align: center;"> </div>		Application Number	10/665,793
		Filing Date	September 19, 2003
		First Named Inventor	Edward J. Kaplan
		Group Art Unit	
		Examiner Name	
Sheet 1 of 13	Attorney Docket Number		KAP 100 CIP

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
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		Office. ³	Number ⁴	Kind Code ⁵ (if known)				
		PCT	WO 95/03036		Angiogenesis Technologies	02-02-1995		
		PCT	WO 96/14880		PGK Corporation	05-23-1996		
		PCT	WO 97/19706		IBT Technology Partners	06-05-1997		
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		PCT	WO 00/41185		Nycomed Amersham PLC	07-13-2000		
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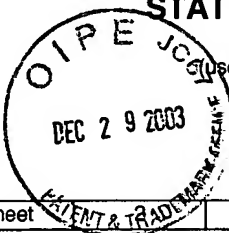
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Sheet	of	13	Attorney Docket Number	KAP 100 CIP

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		PCT	WO 02/30472		Guilford Pharmaceuticals	04-18-2002		

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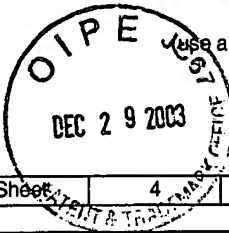
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		Filing Date	September 19, 2003
		First Named Inventor	Edward J. Kaplan
		Group Art Unit	
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Sheet 4 of 13	Attorney Docket Number	KAP 100 CIP	

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		ALONSO, et al., "Biodegradable microspheres as controlled-release tetanus toxoid delivery systems," <i>Vaccine</i> 12: 299 (1994).	
		*ARCOS, et al., "Biphasic materials for bone grafting and hyperthermia treatment of cancer," <i>J. Biomed. Mater. Res.</i> 65: 71-78 (2003).	
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		BENZINA, et al., "Studies on a new radiopaque polymeric biomaterial," <i>Biomaterials</i> 15: 1122 (1994).	
		BREM, et al., "Biodegradable polymers for controlled delivery of chemotherapy with and without radiation therapy in the monkey brain," <i>J. Neurosurg.</i> 80: 283 (1994).	
		BREM, et al., "Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas," <i>J. Neurosurg.</i> 74: 441 (1991).	
		BREM, et al., "Placebo-controlled trial of safety and efficacy of intraoperative controlled delivery by biodegradable polymers of chemotherapy for recurrent gliomas," <i>Lancet</i> 345: 1008 (1995).	
		*BOBOFCHAK, et al., "A recombinant polymeric hemoglobin with conformational, functional, and physiological characteristics of an in vivo O ₂ transporter," <i>Am. J. Physiol. Heart Circ. Physiol.</i> 285: H549-H561 (2003).	
		CAMARATA, et al., "Sustained release of nerve growth factor from biodegradable polymer microspheres," <i>Neurosurg.</i> 30: 313 (1992).	
		CARDINALE, et al., "Effect of interstitial and/or systemic delivery of tirapazamine on the radiosensitivity of human glioblastoma multiforme in nude mice," <i>Radiation Oncol. Invest.</i> 6: 63 (1998).	

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		CHATTARAJ, et al., "Biodegradable microparticles of influenza viral vaccine: comparison of the effects of routes of administration on the in vivo immune response in mice," <i>J. Control. Rel.</i> 58: 223 (1999).	
		CHEN, et al., "Carboplatin-loaded PLGA microspheres for intracerebral implantation: in vivo characterization," <i>Drug Deliv.</i> 4: 301 (1997).	
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		DOMB, et al., "Polyanhydrides I: Preparation of high molecular weight polymers," <i>J. Polym. Sci.</i> 25: 3373 (1987).	
		DURING, et al., "Controlled release of dopamine from a polymeric brain implant: in vivo characterization," <i>Ann. Neurol.</i> 25: 351 (1989).	
		EWEND, et al., "Local delivery of chemotherapy and concurrent external beam radiotherapy prolongs survival in metastatic brain tumor models," <i>Research</i> 56: 5217 (1996).	
		FOWLER, et al., "Evaluation of an implant that delivers leuprolide for one year for the palliative treatment of prostate cancer," <i>Urology</i> 55: 639 (2000).	

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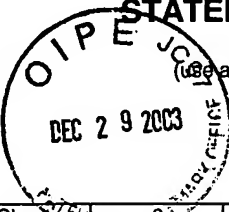
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		FUNG, et al., "Pharmacokinetics of interstitial delivery of camustine, 4-hydroperoxycyclophosphamide, and paclitaxel from a biodegradable polymer implant in the monkey brain," <i>Cancer Res.</i> 58: 672 (1998).	
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		*GEIM, et al., "Microfabricated adhesive mimicking gecko foot-hair," <i>Nature Materials</i> 2: 461-463 (2003).	
		GOBIN, et al., "Embolization with radiopaque microbeads of polyacrylonitrile hydrogel: evaluation in swine," <i>Radiology</i> 214: 113 (2000).	
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		HAFELI, et al., "Effective targeting of magnetic radioactive ⁹⁰ Y-microspheres to tumor cells by an externally applied magnetic field. Preliminary in vitro and in vivo results," <i>Nuclear Med. Biol.</i> 22: 147 (1995).	
		HARPER, et al., "Enhanced efficacy of a novel controlled release paclitaxel formulation (PACLIMER Delivery System) for local-regional therapy of lung cancer tumor nodules in mice," <i>Clin. Canc. Res.</i> 5: 4242 (1999).	
		*HILGENFELDT, et al., "The acoustics of diagnostic microbubbles: dissipative effects and heat deposition," <i>Ultrasonics</i> 38: 99-104 (2000).	
		HORAK, et al., "New radiopaque polyHEMA-based hydrogel particles," <i>J. Biomed. Mat. Res.</i> 34: 183 (1997).	
		HORIUCHI, et al., "Radiotherapy for carcinoma of the tongue with special emphasis on advanced cases," <i>J. Jap. Soc. Cancer Ther.</i> 15(5): 851-857 (1980).	

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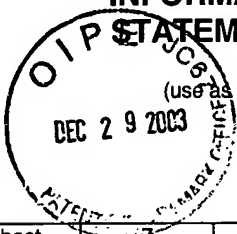
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		*JAISWAL, et al., "Long-term multiple color imaging of live cells using quantum dot bioconjugates," <i>Nature Biotechnol.</i> 21: 47-51 (2003).	
		JUDY, et al., "Effectiveness of controlled release of a cyclophosphamide derivative with polymers against rat gliomas," <i>J. Neurosurg.</i> 82: 481 (1995).	
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		KURIAKOSE, et al., "Interleukin-12 delivered by biodegradable microspheres promotes the antitumor activity of human peripheral blood lymphocytes in a human head and neck tumor xenograft/scid mouse model," <i>Head & Neck</i> p. 57 (2000).	
		LAURENCIN, et al., "Bioerodible polyanhydrides for antibiotic drug delivery: in vitro osteomyelitis treatment in a rat model system," <i>J. Orthopaedic Res.</i> 11: 256 (1993).	
		*LEBUGLE, et al., "Study of implantable calcium phosphate systems for the slow release of methotrexate," <i>Biomaterials</i> 23: 3517-3522 (2002).	

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		LEIBEL & PHILLIPS, <u>Textbook of Radiation Oncology</u> (1998).	
		*LENDLEIN, et al., "Biodegradable, elastic shape-memory polymers for potential biomedical applications," <i>Science</i> 296: 1673-1676 (2002).	
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		*MERRICK, et al., "Seed fixity in the prostate/periprostic region following brachytherapy," <i>Int. J. Radiation Oncol. Biol. Phys.</i> 46: 215-220 (2000).	
		*MINAMIMURA, et al., "Tumor regression by inductive hyperthermia combined with hepatic embolization using dextran magnetite-incorporated microspheres in rats," <i>Int. J. Oncol.</i> 16: 1153-1158 (2000).	
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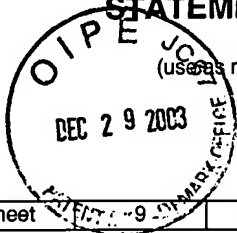
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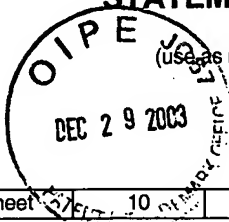
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		RAMIREZ, et al., "Biodegradable poly(DL-lactic-co-glycolic acid) microspheres containing tetracaine hydrochloride. In-vitro release profile," <i>J. Microencapsulation</i> 16: 105 (1999).	
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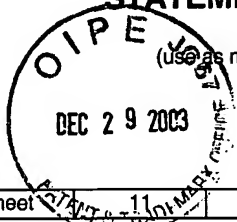
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT 		Application Number	10/665,793
		Filing Date	September 19, 2003
		First Named Inventor	Edward J. Kaplan
		Group Art Unit	
		Examiner Name	
Sheet 1 of 13	Attorney Docket Number	KAP 100 CIP	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		*SUNDBACK, et al., "Manufacture of porous polymer nerve conduits by a novel low-pressure injection molding process," <i>Biomaterials</i> 24: 819-830 (2003).	
		TAMARGO, et al., "Growth inhibition of the 9L glioma using polymers to release heparin and cortisone acetate," <i>J. Neurooncol.</i> 9: 131 (1990).	
		TAMARGO, et al., "Interstitial chemotherapy of the 9L gliosarcoma: controlled release polymers for drug delivery in the brain," <i>Cancer Res.</i> 53: 329 (1993).	
		TAMARGO, et al., "Interstitial delivery of dexamethasone in the brain for the reduction of peritumoral edema," <i>J. Neurosurg.</i> 74: 956 (1991).	
		*TAPEN, et al., "Reduction of radioactive seed embolization to the lung following prostate brachytherapy," <i>Biomater.</i> 24: 819-830 (2003).	
		THANOO & JAYAKRISHNAN, "Radiopaque hydrogel microspheres," <i>J. Microencapsulation</i> 6: 233 (1989).	
		THANOO, et al., "Tantalum-loaded polyurethane microspheres for particulate embolization: preparation and properties," <i>Biomaterials</i> 12: 525 (1991).	
		VALTONEN, et al., "Interstitial chemotherapy with carmustine-loaded polymers for high-grade gliomas: a randomized double-blind study," <i>Neurosurg.</i> 41: 44 (1997).	
		*VIROONCHATAPAN, et al., "Preparation and characterization of dextran magnetite-incorporated thermosensitive liposomes: an on-line flow system for quantifying magnetic responsiveness," <i>Pharm. Res.</i> 12: 1176-1183 (1995).	
		WALTER, et al., "Interstitial taxol delivered from a biodegradable polymer implant against experimental malignant glioma," <i>Cancer Res.</i> 54: 2207 (1994).	

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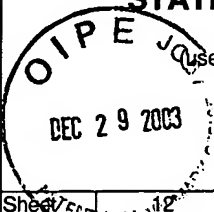
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		"WANG, et al., "A tough biodegradable elastomer," <i>Nature Biotechnol.</i> 20: 602-606 (2002).	
		WANG, et al., "Intratumoral injection of rhenium-188 microspheres into an animal model of hepatoma," <i>J. Nucl. Med.</i> 39: 1752 (1998).	
		WEI, et al., "Carboplatin-loaded PLGA microspheres for intracerebral implantation: in vivo characterization," <i>Drug Delivery</i> 4: 301 (1997).	
		WEINGART, et al., "Local delivery of dexamethasone in the brain for the reduction of peritumoral edema," <i>Int. J. Cancer</i> 62: 1 (1995).	
		WILLIAMS, et al., "Synthetic, implantable polymers for local delivery of IUDR to experimental human malignant glioma," <i>Int. J. Radiation Oncol. Biol. Phys.</i> 42: 631 (1998).	
		WUNDERLICH, et al., "Preparation and biodistribution of rhenium-188 labeled albumin microspheres B 20: a promising new agent for radiotherapy," <i>Appl. Radiation Isotopes</i> 52: 63 (2000).	
		YANG, et al., "Diagnostic and therapeutic potential of poly(benzyl L-glutamate)," <i>J. Pharm. Sci.</i> 83: 328 (1994).	
		YAPP, et al., "Cisplatin delivery by biodegradable polymer implant is superior to systemic delivery by osmotic pump or i.p. injection in tumor-bearing mice," <i>Anti-Cancer Drugs</i> 9: 791 (1998).	
		YAPP, et al., "The potentiation of the effect of radiation treatment by intratumoral delivery of cisplatin," <i>Int. J. Radiation Oncol. Biol. Phys.</i> 42: 413 (1998).	
		YAPP, et al., "Tumor treatment by sustained intratumoral release of cisplatin: effects of drug alone and combined with radiation," <i>Int. J. Radiation Oncol. Biol. Phys.</i> 39: 497 (1998).	

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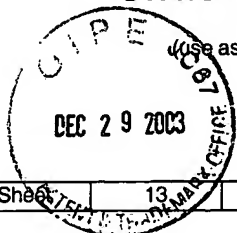
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		YOSHIDA, et al., "In vivo release of cisplatin from a needle-type copolymer formulation implanted in rat kidney," <i>Biomaterials</i> 10: 17 (1989).	
		YUAN, et al., "Implantable polymers for tirapazamine treatments of experimental intracranial malignant glioma," <i>Radiation Oncol. Invest.</i> 7: 218 (1999).	
		*ZHANG, et al., "An all-organic actuator material with a high dielectric constant," <i>Nature</i> 419: 284-287 (2002).	

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